

# **Lightweight Electric Fence System**

Thank you for purchasing the Pentagon™ Electric Fence System. This is the first commercially available electric mesh fence kit that meets or exceeds the guidelines published in the USDA Forest Service Recreation Tech Tips (0723-2305MTDC) in March 2007. Please read the following instructions carefully to become acquainted with the features, assembly, and safe operability of the Pentagon™ Electric Fence. This high performance device must be installed and operated properly in order to achieve the best possible results.

Counter Assault has assembled the highest quality components to provide the optimum performance, battery—operated, lightweight electric mesh fence system available. An electric fencing system is comprised of three main components: (1) energizer, (2) transmission lines, in this case, the mesh poly wire which includes the built in fence posts with insulators, and (3) the grounding path to the earth.

How Does Power Fencing Work? A pulsed electric

current is sent along the fence wire from a properly grounded energizer. When the bear touches the fence it completes the circuit between the fence and the ground and receives a short, sharp but safe shock. The shock is sufficiently memorable that the bear should never forget.

The energizer is the heart of the fencing system and Counter Assault has selected the Gallagher B11. The portable B11 is operated by six "D" size batteries, which produces 35-45 pulses per minute and delivers 8000-9000 volts, which equates to 0.11 joule rating and can last for 3 months of continual operation.

Another unique component to this electrical system is the mesh fence. Tests have shown that the mesh configuration with alternating hot (energized) and ground wires is recommended for bears. The mesh containing the semi-rigid stays (the larger vertical poly wire) keep the mesh from drooping, which could allow the hot wires to short out against the ground wires. The mesh fence is also quicker and easier to erect and disassemble.

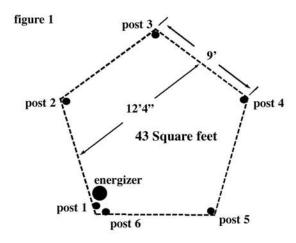
### **Pentagon Contents**

PartQty
A-Mesh Fence-1 Roll
B-Ground Rod 1 ea
C-LED Lights
D-Ground Lead Wire 1 ea
E-Storage Bag 1 ea
F-Velcro Straps 3 ea
G-Electric Fence Placard 1 ea
H-Zareba Fence Voltage Tester .1 ea
I - Gallagher B11 Energizer 1 ea

Requires – 6 D cell batteries 4 AA cell bateries (not included)



## **Installation and Assembly Directions**



Choose a spot to install the fence where the ground is flat, where no trees or brush will hang over the fence, and where the fence does not block an established game trail. Unroll the fence and grab the posts, allowing the loops of mesh to droop between the posts. To install the fence:

- 1. Hold the posts and allow the fence mesh to drop (figure 2).
- 2. Push the end posts into the ground at your starting point. Do not hammer the posts into the ground.
- 3. In a pentagon shape, insert each of the remaining poles into the ground to delineate the five sides of the fence. At the last post



figure 2

(#6), push the post into the ground next to the first post; completing the pentagon shape (figure 1).

4. Use one of the Velcro straps and loop the strap end



figure 3 page 2

through the insert hole and strap this to the top of end post #1 (figure 3). Then take the loose end and wrap around end post #6 to connect the two. Posts #1 and #6 are basically the "opening and closing" of the fence enclosure. The Velcro strap can be unwrapped and wrapped repeatedly while erecting the fence.

- **5.** Reposition the individual posts (#2-#5) until you are satisfied with the fence's tension and shape.
- **6.** NOTE: Make sure that the white wires are on the outside of the post.

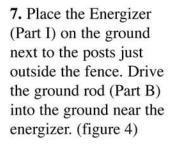




figure 4 ground ground wire rod

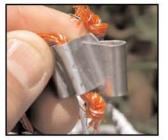


figure 5

8. Clip electrical wires together (both top and bottom) with the metal crimped tabs on the mesh fence near the end posts. (figure 5)

9. Attach the energizer GREEN wire to the fence ground wire (BLACK). Connect the separate orange ground lead wire (Part D) from the ground rod to the fence ground wire (BLACK) (figure 6).



10. Install batteries in the

led lights (Part C) and use

the remaining Velcro

figure 6

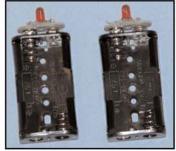


figure 7

straps to secure the LED lights on any two posts (figure 7).

- 11. Connect the RED (hot) wire from the energizer to the METAL CLIPS on the mesh fence. NOTE: If you do not connect the red (hot) wire from the energizer to the proper metal clips (located at top of posts #1 & #6) on the fence and the GREEN (ground) wire to the proper metal clip (located at bottom of post #1 & #6) on the fence, the energizer will not operate properly (figure 8).
- **12.** If the soil is very dry, pour water over the ground rod to provide a good earth ground.



figure 8

# Activating the Fence

Please read and familiar yourself with the Gallagher B11 Manual

Safety Information: Important Any alteration to the design of this energizer may cause serious electrical shock and may void the warranty. Inform everyone, especially children, who might possibly come into contact with the electrically charged fence, about its location and operation. Do not allow children to play with energizer or near the electrified wires. Never climb over an electrified fence. Never install an electric fence below high voltage transmission lines. Instruct all persons how to disconnect the energizer in case of emergency.

**Inserting Batteries (not included):** Read the instructions in the Gallagher B11 Manual provided on insert page. Ensure that the unit is turned off when installing the batteries.

Note: While the energizer is designed to be weather resistant, install it under cover from the weather whenever practical.

- 1. After supplies have been centered within the fence enclosure, close the fence with the Velcro wrap. With the energizer outside the fence, turn it on to a "2" setting. NOTE: the setting must be at "2" to achieve optimum performance. Carefully slide the energizer under the fence into the fenced area. The Fence's bottom two wires are ground wires, so you should be able to do so without getting shocked. The energizer must be inside the fence to keep it out of reach of animals.
- 2. Use the Fence Voltage Tester (Part H) to check for fence voltage. Place one lead on the energized (hot) white wires and the other lead on the black ground wire. If the voltage reading is greater than 5000 volts, the fence is working properly. It should read 7000 with good batteries and proper ground (figure 9).



figure 9

**3.** If the voltage is less than 5000 volts, recheck the instructions. Also check to see if any tall grass or any other obstruction is touching the hot wires. Turn off the energizer before touching the fence.

### **Common Problems in Fence Installation**

- 1. Excessive weeds or tree branch touching the fence
- **2.** The connection to the ground rod is inadequate. Securely attach ground rod and check to be sure that no corrosion is present.
- **3.** Poor ground. Pour water over ground rod to provide good earth to ground.
- **4.** Poor connections between metal crimped tabs (figure 5), ground lead wire (figure 6), or energized wire (figure 8).

### Removing the Fence

- 1. Turn the energizer off.
- **2.** Disconnect the energizer and electrical connections. Remove ground rod.



figure 10

- **3.** Remove the LED lights.
- **4.** Pull each post from the ground as you walk down the fence line.
- 5. Gather up the fence by collecting the posts with the loops of the mesh drooped between them. Allow the mesh to fold into the loops, accordion style, as you proceed (figure 10).
- 6. Lay the fence flat on the ground and ROLL the mesh around the POSTS.

**7.** Collect all components and place inside storage bag.



The Pentagon Electric Fence does not replace common sense while recreating in bear country. Do not seek out encounters with bears. Never store odorous items in or around your camping area. Remember: A Fed Bear is a Dead Bear.

Thanks to the following for their help with testing and design:

- Center for Wildlife Information www.bebearaware.org
- USDA Forest Service
- Missoula Technical Development Center
- Gallagher USA

# Other products from Counter Assault

Counter Assault<sup>®</sup>:
The Pros Choice in
Bear Country

Counter Assault Bear Deterrent: available in 8.1 oz (230 gr) and 10.2 oz (290 gr). Contains the maximum allowable concentration and has maximum spray time and spray distance. Look for Counter Assault® Bear Deterrent in the RED can.

Counter Assault is the original bear deterrent pepper spray; the first EPA registered bear deterrent pepper spray and in 1998, was awarded the "Grizzly Bear Stewardship Award" for research and development of bear deterrent pepper

spray by the Interagency Grizzly Bear Committee.



SIBBG (black bears) for food storage in state and national parks. Made from a bright yellow proprietary polymer blend that is extremely durable and highly visible. Safely stores 6-8 days worth of food. Optional carry pack also available.

Counter Assault also manufactures a complete line of law enforcement and personal defense pepper sprays.



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for the

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